-187-

CLAIMS

1. A system using services, in which an image
handling apparatus for controlling an image handling process
5 concerning the service and an external processing apparatus
conducting at least a part of the image handling process by
taking place of the image handling apparatus are connected to
the system using services through a network, said system
comprising:
10   a notification function part informing a change of
a state of the image handling apparatus to a predetermined
destination.

2. The system using services as claimed in claim 1,
15 comprising a management function part managing information
concerning the change of the state, wherein the information
concerning the change of the state managed by the management
function part is sent to a predetermined notification
destination.
20

3. The system using services as claimed in claim 1,
wherein the notification function part sends information a
type of which is registered beforehand, from information
concerning the change of the state to a predetermined
25 notification destination.

-188-

4. The system using services as claimed in claim 1, wherein the notification function part sends contents registered beforehand as information concerning the change of

5   the state to a predetermined notification destination registered beforehand.

5. The system using services as claimed in claim 1, further comprising an instructing part instructing a screen

10   display at a display unit of the image handling apparatus, wherein when the state of the image handling apparatus changes, information concerning the change of the state is sent from the image handling apparatus to the instructing part, and the instructing part instructs the

15   display unit to display a screen corresponding to information concerning the change of the state.

6. The system as claimed in claim 5, wherein a terminal apparatus other than the image handling apparatus

20   includes the display unit.

7. The system as claimed in claim 1, wherein the notification function part instructs a display unit of the image handling apparatus as the predetermined notification

25   destination or a display unit of a terminal apparatus other

-189-

than the image handling apparatus, to display a screen

corresponding to information concerning the change of the

state.

5   8.   The system as claimed in claim 1, wherein the

notification function part instructs a display unit of the

image handling apparatus or a terminal apparatus other than

the image handling apparatus to display a screen corresponding

to information concerning the change of the state based on an

10   acquisition request sent from the display unit.

          9.   The system using services as claimed in claim 1,

wherein the external processing apparatus further comprises an

instructing part instructing a display unit of the image

15   handling apparatus or a terminal apparatus other than the

image handling apparatus,

          wherein based on an acquisition request sent from

the external processing apparatus, information concerning the

change of the state is sent from the instructing part to the

20   image handling apparatus, and the instructing part instructs

the display unit to display a screen corresponding to

information concerning the change of the state.

          10.   The system using services as claimed in claim

25   1, wherein the management function part is provided in an

-190-

intermediate apparatus other than the image handling apparatus
or the external processing apparatus.

         11. An image handling apparatus connectable to an
5   external processing apparatus through a network and having the
external processing apparatus to conduct at least a part of an
image handling process concerning services, said image
handling apparatus comprising:
         a notification function part sending a change of a
10 state of the image handling apparatus itself to a
predetermined notification destination.

         12. An external processing apparatus connectable
to an image handling apparatus through a network and having
15 the image handling apparatus to conduct at least a part of an
image handling process concerning services, said external
processing apparatus comprising:
         a notification function part sending a change of a
state of the image handling apparatus to a predetermined
20 notification destination when the change of the state of the
image handling apparatus is received.

         13. A state change sending method for sending a
change of a state of a system using services in which an image
25 handling apparatus controlled by an image handling process

-191-

concerning services and an external processing apparatus

conducing a part of the image handling process by taking a

place of the image handling apparatus are connected through a

network, said state change sending method comprising the step

5   of:

        sending the change of the state of the image

handling process apparatus to a predetermined notification

destination.

10   14. A program product for causing a computer to

send a change of a state of a system using services in which

an image handling apparatus controlled by an image handling

process concerning services and an external processing

apparatus conducing a part of the image handling process by

15 taking a place of the image handling apparatus are connected

through a network, said method comprising the step of:

        sending the change of the state of the image

handling process apparatus to a predetermined notification

destination.

20

        15. A system using services in which an image

handling apparatus and an external processing apparatus are

connected through a network, wherein:

        said external processing apparatus comprises a

25 controlling part conducting at least a part of an image

handling process concerning a service by taking place of the

image handling apparatus; and

said image handling apparatus comprises a function

which is controlled by the image handling process, wherein the

5   function is controlled at a trigger of receiving a request

sent from the controlling part.

16.   The system using services as claimed in claim

15, wherein the image handling apparatus comprises a service

10   providing part allowing an external control to control the

function, wherein the image handling process is conducted by

externally controlling the function.

17.   The system using services as claimed in claim

15   16, wherein the external processing apparatus controls the

function by using the service providing part based on a

request received from the image handling apparatus.

18.   The system using services as claimed in claim

20   15, wherein the image handling apparatus comprises a

requesting part requesting at least a part of the image

handling process to the controlling part.

19.   The system using services as claimed in claim

25   15, wherein the image handling process is realized by one or

-193-

more function controlling parts controlling the function, a

service providing part allowing an external control to control

the function controlling part, and software externally

controlling the function controlling part,

5   wherein the software is implemented in the external

processing part as at least a part of the image handling

process.

20.   The system using services as claimed in claim

10   18, wherein the requesting part includes an executing part

capable of executing at least a part of the image handling

process.

21.   The system using services as claimed in claim

15   20, wherein the requesting part requests at least the part of

the image handling process to the external processing

apparatus through another external processing apparatus.

22.   The system using services as claimed in claim

20   15, wherein the image handling apparatus comprises:

a service providing part capable of internally

controlling the function; and

a requesting part controlling the function by using

the service providing part.

25

23. The system using services as claimed in claim 17, wherein the external processing apparatus controls the function by using the service providing part through another external processing apparatus.

5

24. The system using services as claimed in claim 15, wherein the controlling part allows a plurality of functions to cooperate with each other.

10   25. The system using services as claimed in claim 24, wherein the controlling part allows one function implemented in one image handling apparatus and another function implemented in another image handling apparatus to cooperate with each other.

15

26. The system using services as claimed in claim 15, wherein one controlling part implemented in one external processing apparatus and another controlling part implemented in another external processing apparatus are cooperated with

20 each other.

27. The system using services as claimed in claim 15, wherein a terminal apparatus comprising a requesting part requesting at least one part of the image handling process to

25 the controlling part is connected to the image handling

-195-

process and the external processing part through the network.

28.   The system using services as claimed in claim

18, wherein the external processing apparatus provides a user

5   interface of the controlling part to the requesting part.

29.   The system using services as claimed in claim

28, wherein the image handling apparatus further comprises a

updating part requesting the controlling part to update the

10   user interface.

30.   The system using services as claimed in claim

15, wherein when the image handling apparatus and the external

processing apparatus are in an offline state, the image

15   handling apparatus reads out a file for building up the

controlling part from a storage area included in the image

handling apparatus, builds up the controlling part in the

image handling apparatus, and controls the function when a

request is made to the controlling part built in the image

20   handling apparatus.

31.   The system using services as claimed in claim

30, wherein while the image handling apparatus and the

external processing apparatus are in an online state, a file

25   for building up the controlling part is transferred from the

-196-

external processing apparatus to the storage area.

32.   The system using services as claimed in claim
28, wherein while the image handling apparatus and the
5   external processing apparatus are in an off line state, at
least a part of the user interface of the controlling part is
transferred from the external processing apparatus to a
storage area, at least the part of the user interface of the
controlling part read out from the storage area is provided to
10   the requesting part.

33.   The system using services as claimed in claim
30, wherein while the image handling apparatus and the
external processing apparatus are in an online, the function
15   is controlled when a request is made to the controlling part
built in the external processing apparatus, and while the
image handling apparatus and the external processing apparatus
are in an offline, the function is controlled when a request
is made to the controlling part built in the image handling
20   apparatus.

34.   An image handling apparatus connectable to an
external processing apparatus through a network, said image
handling apparatus comprising a function which is controlled
25   by the image handling process concerning a service, wherein at

-197-

least a part of the image handling process is allowed to be

controlled by the external processing apparatus taking a place

of the image handling apparatus, and the function is

controlled when a request is received from the external

5   processing apparatus.

        35.   The image handling apparatus as claimed in

claim 34, further comprising a service providing part allowing

an external control to control the function, wherein the image

10   handling process is conducted by externally controlling the

function.

        36.   The image handling apparatus as claimed in

claim 35, further comprising a requesting part requesting at

15   least a part of the image handling process to the external

processing apparatus.

        37.   The image handling apparatus as claimed in

claim 36, wherein:

20   the requesting part includes identification of data

required for the image handling process in a request and sends

the request to the external processing apparatus; and

             the service providing part uses data corresponding

to the identification included in the request received from

25   the external processing apparatus, and controls the function.

-198-

38. An external processing apparatus connectable

to an image handling apparatus through a network, said

external processing apparatus comprising:

5   a controlling part controlling at least a part of

an image handling process concerning a service by taking a

place of the image handling apparatus,

          wherein the controlling part requests the image

handling apparatus to control a function included in the image

10 handling apparatus in which the function is controlled by the

image handling process.

          39. The external processing apparatus as claimed

in claim 38, wherein the controlling part controls the

15 function by using a service providing part included in the

image handling apparatus, the service providing part allowing

an external control to control the function.

          40. A program product causing an external

20 processing apparatus as a computer to conduct a service, the

external processing apparatus connectable to an image handling

apparatus through a network, said program product comprising

the codes for:

          functioning as a controlling part for conducting at

25 least a part of an image handling process concerning a service

-199-

by taking a place of the image handling apparatus,

wherein the controlling part requests the image
handling apparatus to control a function implemented in the
image handling apparatus in which the function is controlled
5 by the image handling process.

41.   A system using services in which an
information processing apparatus and an external processing
apparatus are connected to each other through a network,
10 wherein:

said external processing apparatus comprises a
controlling part conducting at least a part of a process
concerning to a service by taking a place of the information
processing apparatus; and

15 said information processing apparatus comprises a
function which can be controlled by the process, wherein the
function is controlled when a request is received from the
controlling part.

20 42.   The system using services as claimed in claim
41, wherein the information processing apparatus comprises a
service providing part allowing an external control to control
the function, wherein the function is externally controlled
and the function conducts the process.

25

-200-

43.   The system using services as claimed in claim 42, wherein the external processing apparatus controls the function by using the service providing part based on a request received from the information processing apparatus.

5

44.   The system using services as claimed in claim 41, wherein the information processing apparatus comprises a requesting part requesting at least a part of the process to the controlling part.

10

45.   The system using services as claimed in claim 45, wherein:

the process is realized by at least one function controlling part controlling the function, a service providing part allowing an external control to control the function controlling part, and software externally controlling the function controlling part; and

the software is implemented in the external processing apparatus as at least a part of the process.

20

46.   The system using services as claimed in claim 44, wherein the requesting part comprises an executing part capable of executing at least a part of the process.

25   47.   The system using services as claimed in claim

-201-

46, wherein the requesting part requests at least a part of

the process to the external processing apparatus through

another external processing apparatus.

5   48.   The system using services as claimed in claim

41, wherein the information processing apparatus comprises:

a service providing part capable of internally

controlling the function; and

a requesting part controlling the function by using

10   the service providing part.

49.   The system using services as claimed in claim

43, wherein the external processing apparatus controls the

function by using the service providing part through another

15   external processing apparatus.

50.   The system using services as claimed in claim

41, wherein the controlling part controls a plurality of the

functions to be cooperated with each other.

20

51.   The system using services as claimed in claim

50, wherein the controlling part controls one function of one

information processing apparatus and another function of

another information processing apparatus to be cooperated with

25   each other.

52. The system using services as claimed in claim 41, wherein one controlling part of one external processing apparatus and another controlling part of another external

5   processing apparatus are controlled to be cooperated with each other.

53. The system using services as claimed in claim 41, wherein a terminal apparatus including a requesting part

10   requesting at least a part of the process to the controlling part is connected to the information processing apparatus and the external processing apparatus through the network.

54. The system using services as claimed in claim

15   44, wherein the external processing apparatus sends a user interface of the controlling part to the requesting part.

55. The system using services as claimed in claim 54, wherein the information processing apparatus further

20   comprises an updating part requesting an update of the user interface to the controlling part.

56. An information processing apparatus connectable to an external processing apparatus through a

25   network, said information processing apparatus comprising:

-203-

a function controlled by a process concerning a

service,

wherein at least a part of the process is allowed

to be conducted by the external processing apparatus, instead

5 of the information processing apparatus itself, and the

function is controlled when a request is received from the

external processing apparatus.

57. The information processing apparatus as

10 claimed in claim 56, further comprising a service providing

part allowing an external control to control the function,

wherein the function is externally controlled and the process

is conducted.

15   58. The information processing apparatus as

claimed in claim 57, comprising a requesting part requesting

at least a part of the process to the external processing

apparatus.

20   59. The information processing apparatus as

claimed in claim 58, wherein:

the requesting part includes an identification of

data required to the process to a request, sends the request

to the external processing apparatus; and

25   the service providing part uses data corresponding

-204-

the identification included in the request received from the

external processing apparatus, wherein the function is

controlled.

5   60.   An external processing apparatus connectable

to an information apparatus through a network, the external

processing apparatus comprising:

          a controlling part conducting at least a part of a

process concerning a service by taking a place of the

10   information processing apparatus, wherein the controlling part

requests to the information processing apparatus to control a

function of the information processing apparatus, in which the

function controlled by the process.

15   61.   The external processing apparatus as claimed

in claim 60, wherein the controlling part controls the

function by using a service providing part included in the

information processing part in which the service providing

part can externally control the function .

20

          62.   A program product causing an external

processing apparatus as a computer to conduct a service, the

external processing apparatus connectable to an information

processing apparatus through a network, said program product

25   comprising the codes for:

-205-

functioning as a controlling part for conducting at

least a part of a process concerning a service by taking a

place of the information processing apparatus,

wherein the controlling part requests the

5   information processing apparatus to control a function

implemented in the information processing apparatus in which

the function is controlled by the process.